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BEYOND ILLUSIONS AND DEFENSE: EXPLORING THE POSSIBILITIES AND LIMITS OF HUMAN AUTONOMY AND RESPONSIBILITY THROUGH SELF-DETERMINATION THEORY

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Social psychologists are skilled at showing that nonconscious processes determine our behavior, that implicit threats automatically drive us toward inhumanity and defense, and that attempts to exercise choice and volition are not only mentally depleting but also often illusory. But is that the full story? In this chapter, we review evidence concerning people's illusions of will and vulnerabilities to defense and contrast it with findings from self-determination theory (SDT). The latter findings highlight individuals' power to act in accord with integrated values and, through mindfulness and autonomy, to resist habitual and defensive responding. These inherent human potentials are, of course, balanced by manifold vulnerabilities to threats and controls made salient in research within the SDT tradition, as well by findings from other social psychological perspectives. In short, findings that people can be defensive or unconsciously controlled do not mean that they are always defensive and controlled. Psychology can shed valuable light on existential philosophy's "other side"—namely, the human potential to act autonomously.

THE CONTEMPORARY IMAGE OF HUMANITY IN SOCIAL PSYCHOLOGY

If we were to peer into the mirror held up to us by contemporary experimental social psychology, the reflection would be sad indeed. We would see fearful, weak, defensive, and nonconsciously driven animals who suffer illusions of free will. We would see creatures dominated by implicit processes operating outside of their awareness and who are mentally depleted by even simple efforts at self-regulation. In fact, with regard to any sense of human freedom, volition, or will, the message from today's social psychology seems to be that these cherished ideas are at best fragile and more likely merely illusory.

Authors such as Wegner (2008) and Bargh (2008) have specifically portrayed free will and self-causation as inherently antideterministic and, hence, unscientific concepts, thus rendering them indefensible and implying that the idea of committed choices is without empirical support. Indeed, a cover of *American Psychologist* (November 1999) went so far as to proclaim, "Behavior—It's Involuntary," as if this were an empirical conclusion. Even Freud, so often said to have held a pessimistic view of humanity, might reel at the fragile automaton envisioned within social psychology today, for his (1923/1961) metaphor of a powerful unconscious at least allowed for a rider, the partially conscious ego, that could sometimes guide the steed.

Even in the chapters of this volume on meaning, mortality, and choice, the message from terror management theory (TMT; Greenberg, Solomon, & Pyszczynski, 1997) suggests that our personal beliefs, life goals, and cultural values are largely products not of growth and conscious purpose but of blind defense. That is, nonconscious defenses against the awareness of mortality drive people to adopt identities, develop affiliations and attachments, aggress against outgroup members, and convince themselves that their lives have purpose and meaning (see Chapters 1, 2, 3, 4, and 6, this volume). Thus, the consciousness that some philosophies consider to be liberating is viewed in TMT as awakening realities that are, apparently, too hard to handle. Protecting the psyche from anxiety thus becomes in TMT the primary, rather than a secondary, source of human motivation and culture.

REALLY? ARE HUMANS SO WEAK, DEFENSIVE, AND CONTROLLED?

Before social psychology indulges in its final celebratory dance on the graves of free will, human meaning, and self, let us consider the specific constructs being so eagerly toppled. Perhaps the free will that theorists are speaking of is not the kind of autonomy or self-regulatory capacity that humans

need to thrive. If, for example, *free will* were defined as the capacity to make choices through processes that defy scientific principles of causation, we too would be happy to applaud its demise. However, we maintain that the "feeling of free will," when properly considered, is not merely illusory; it is rather an experiential state with important consequences that accompanies some forms of motivated behavior. In fact, substantial evidence suggests that people's feelings of "authorship" (e.g., Wegner, 2008) or autonomy (e.g., Ryan & Deci, 2000) reliably predict many positive functional outcomes such as effective performance and wellness (Deci & Ryan, 2012). Such feelings and attributions are typically not epiphenomenal or deluded (although they can be tricked by clever experimenters) but rather constitute reliable and functionally important experiences and adaptive sensibilities.

Our concern is not only about free will; it also extends to the portrait of a defensive humanity highlighted in this volume's chapters on TMT. To be sure, we believe that TMT points to an important aspect of life highlighted by existential philosophers in which anxiety about mortality can drive defensive behavior. Yet, even though many of the dynamic defensive processes revealed by TMT are robust, there is another side of existentialism, a side that Warnock (1970) reminded us is existentialism's central message. As she stated, existentialists

> aim, above all, to show people *that they are free*, to open their eyes to something which has always been true, but which for one reason or another may not always have been recognized, namely not only that men are free to choose, not only what to do on a specific occasion, but what to value and how to live. (pp. 1–2, emphasis in original)

Is there any empirical evidence to support this positive message of existentialism? Or must one conclude that people are indeed the passive, weak, and defensive creatures some experimental social psychologists have portrayed? Are we capable of being in the center of our lives, responsible for what we do? Or is that merely illusion and defense?

In what follows, we consider the philosophical and empirical support for existentialism's most central message and review evidence derived from self-determination theory (SDT; Ryan & Deci, 2000) suggesting that people can and do exercise autonomy and act with integrity, whereas at other times they succumb to vulnerabilities to being controlled, defensive, or inauthentic (see also Chapter 14, this volume, on this point). First, we reexamine recent arguments against free will to contrast them with more useful and functionally relevant conceptions of volition and autonomy. Second, we briefly review a large body of evidence showing that the human experience of behaving autonomously is related to effective, positive functioning, findings that are consistent across cultures, gender, domains, and economic status. Third, we

review recent experimental evidence that people who are more integrated and autonomous are more resilient to threat, depletion, terror, and nonconscious influences. That is, when more self-determined, people show less vulnerability to eroding influences. Fourth, we show that this is true even with respect to reminders of personal mortality. Without denying that mortality salience (MS) can, under some conditions, evoke defenses and self-esteem-protective behavior, we show that defense is not inevitable and that not everyone is equally susceptible.

Finally, we revisit the popular trend in psychology to deflate the human image, asking why such a tendency has emerged particularly within experimental social psychology. We remind readers of the "can versus do" bias (McCall, 1977) of experimental psychology—namely, that although in controlled experiments one can produce certain behaviors, this does not ensure that those same factors typically do initiate or control those behaviors outside the lab. Thus, we understand that people can be fooled into a false sense of volition, but that does not mean they are always fooled. We can evoke defenses that push people to cling to beliefs, but it does not follow that this is why beliefs are typically developed or held. In short, there is a tendency within experimental social psychology to make logical leaps from findings that people can be controlled to assertions that they are pervasively controlled. Sadly, this fosters bodies of knowledge that are disconnected from a fuller, more coherent model of human functioning that places vulnerabilities in juxtaposition to inherent growth tendencies and capacities for autonomy. We conclude by pointing to the evolved integrative propensities that are at the forefront of human motivation as a core existential strength. We note that findings from social psychology concerning human fallibilities and defenses highlight our limitations and the dynamic forces that can derail positive human potentials. Yet, as salient as these vulnerabilities may be, they need to be put into a theoretical context that recognizes the possibilities of "free-range" human beings.

ON THE ILLUSIONS BEHIND THE "ILLUSION OF FREE WILL": LET THE STRAW MEN BURN

Some kinds of free will may not be worth having. The most popular attacks on free will and self-regulation from social psychologists should not disturb anyone who is listening carefully, because the concepts they knock down are not consistent with practical living.

For example, we do not need a free will that is defined as an original or first cause of action. This is the definition of free will provided by Bargh (2008), who stated with all the authority of science that "subjective feelings of free will are one of the 'positive illusions' . . . we hold dear. [It] is irrelevant to

the scientific status or truth-value . . . it is still an illusion" (p. 133). His argument is based on the premise that free will is only represented by thoughts and decisions that arise from neither the brain nor one's environment. For Bargh, will is "free" only when it is "uncaused"—there being no prior cues, influences, or prompts. In fact, Bargh's free will must also be immaterial. Citing evidence from Libet (2004) that brain activity can be detected before a conscious thought, Bargh construed this to mean that the "brain," rather than the self or will, "causes" consciousness—a logical trick only a dualist can master.

Should we be surprised that intentions are in fact inspired from within our minds or by cues from without? For an action to be done freely, must the motive first arise in immaterial thought and not in my brain or body, my unconscious musings, or even my environment? If I freely decide to go out with a friend, does that necessitate that the friend did not invite me, that it must be *my*, and only *my*, idea? Indeed, does any action arise without preceding conditions? This Procrustean bed appears to be required for Barghian free will. In fact, however, prior inputs are always involved in will or autonomy, simply because as living organisms we are inherently intertwined with the world (Mackenzie, 2000). Making choices and regulating behaviors inevitably occur with respect to multiple and concurrent inputs and influences. To act with autonomy and integrity is an act of synthesis, not one of creating intentions ex nihilo.

Another form of free will we have no desire to defend is a free will that is infallible. Wegner (2008) argued that self and volition are akin to "magic"—masking the "real" automatic mechanisms of mind. Wegner's bases for this claim overlap considerably with those of Bargh (2008), but he brings an additional form of evidence to condemn free will: demonstrations that our sense of will can be tricked. Specifically, Wegner noted that actions perceived to be self-caused typically share common features, including consistency (intentions and outcomes must be consistent), priority (intention must precede the action), and exclusivity (no other plausible causes are apparent). He and his colleagues then showed that when people are in ambiguous experimental situations (e.g., involving Ouija boards, voodoo curses) and are given cues of consistency, priority, and exclusivity, they often misattribute actions or outcomes to their own intentions.

But, speaking of magic, these demonstrations do not show what they claim to reveal. They are, in fact, analogous to optical illusions. To create an optical illusion, one inserts cues into visual stimuli that typically inform vision but that instead mislead the perceiver. For example, occlusions typically convey depth, and an illusion fools us by making a foreground object appear occluded by something that is, in fact, farther away. It's a great trick, but how many visual researchers have concluded that because we can design

such optical illusions, the human capacity for visual perception is therefore an illusion? Yet Wegner appears to apply this logic: If people can be fooled about the antecedents of their behavior, then all attributions to self or volition are erroneous.

It is also not necessary that free will be independent of a brain. Reductionists argue that causation of volitional action is of necessity based in brain activity, and they then derive from that idea that volition therefore does not exist. After all, the brain did it! Examples of this line of thinking abound in neuroscience discourse, with Pinker (2002) providing an illustrative quote:

> Each of us feels that there is a single "I" in control. But that is an illusion that the brain works hard to produce. . . . The brain does have supervisory systems in the prefrontal lobes and anterior cingulate cortex, which can push the buttons of behavior and override habits and urges. But these systems are gadgets with specific quirks and limitations; they are not implementations of the rational free agent traditionally identified with the soul or the self. (p. 43)

This is remarkable thinking. First, who doubts that autonomous, volitional action in which the I "feels in control" requires a brain (and a cardiovascular system and some other essential organs as well)? So too does engaging controlled or alienated actions. But what is this "rational free agent," "soul" construct Pinker introduces? It certainly sounds implausible! Yet, note in Pinker's account that as he eviscerates the "I/soul," the brain becomes, linguistically, a new homunculus or agent. The brain is "producing illusions" and "pushing the gadgets."

In our view, autonomy is not separate from the organism—rather, autonomy is one form of functioning, as is being controlled. Accordingly, empirical research is increasingly pinpointing the distinctive processes involved in autonomous regulation versus controlled regulation. As Walton, Devlin, and Rushworth (2004) stated, neural mechanisms "differ depending on whether we are told what to do or are able to exercise our volition" (p. 1259). Rather than contradicting theorizing about autonomy, localization efforts support and extend theorizing (Reeve & Lee, 2012), showing, for example, that volitional action involves a great degree of higher order supervisory capacities (e.g., Brass & Haggard, 2007) or the processes underlying intrinsic motivation and its undermining (e.g., Murayama, Matsumoto, Izuma, & Matsumoto, 2010).

When one conceives of an "I," not as a mysterious immaterial force but as a whole organism that is functioning in a relatively unified, integrated way—acting as a synthesis—and in doing so, experiencing self-regulation and autonomy, then one is closer to the organismic view of the self. The self is organization and is opposed not by brain or environment but by controlling

forces or contingencies that are inconsistent with its functioning or needs and thus disrupt its tendency toward volitional functioning.

In short, the versions of free will that are being torched all along main street social psychology are highly combustible conceptualizations, well worth burning. Luckily, the volitional and self-regulation capacities humans actually need to thrive are not disconnected from a world, need not be infallible, and certainly require both brain and body. No one has yet made a convincing argument that this type of free will is without import or use.

AUTONOMY: THE FUNCTIONAL FORM OF WILLING IN HUMAN BEINGS

One of the most noteworthy characteristics of the concepts of free will attacked by experimental psychologists is how they are "all or none." Behavior is either free or determined, accurate or illusion, immaterial or "real." These absolutist formulations of volition and self-regulation contrast with our everyday phenomenology of autonomy and self-determination (see, e.g., Pfander, 1908/1967). When acting in real life, people may sometimes feel "totally" free, but more often individuals experience varied degrees of volition or choice. It is in fact the relative autonomy of almost all actions that defines the sense of self and its involvement in intentional behaviors. As de Charms (1968) suggested, the *perceived locus of causality* for actions is a fundamental human sensibility and concern. Behavior that has an *internal perceived locus of causality* is experienced as either self-initiated or self-supported (i.e., as willingly done). Behavior that has an *external perceived locus of causality* is experienced as controlled and sustained by forces outside the phenomenal self (see Ryan & Connell, 1989).

The concept of autonomy as reflecting this relative sense of self-endorsement and self-support of one's actions, versus the sense of one's behaviors as being imposed or alien, has a deep history within philosophical thought. It is reflected in existential phenomenology from Pfander (1908/1967) to Ricoeur (1966), in analytic philosophy from Frankfurt (1971) to Friedman (2003), and in varied Eastern philosophies, within which even Confucian analytics value autonomy as integration (e.g., Cheng, 2004). Philosophical traditions thus have been concerned with the kind of autonomy we do have: autonomy as the reflective endorsement of one's actions, grounded in the congruence between actions and one's abiding values, interests, and priorities. In addition, these traditions make clear that autonomy is not independence. One can be autonomously or heteronomously dependent, interdependent, or independent.

This idea of autonomy is instantiated within the SDT model of self-regulation. Specifically, the regulation of behavior is seen in SDT as varying along a continuum of relative autonomy. At the more heteronomous end of the continuum is behavior that is *externally regulated:* Behaviors are experienced as controlled by an external agent, as when one is doing something to get an externally administered reward or avoid a punishment. To the degree that such behaviors are not backed by the self (i.e., are not internalized), they become reward- or control-dependent. Thus, when external rewards or contingencies lapse, so does maintenance of the behavior. In contrast to external regulation, *introjected regulation* represents regulations that have been partially internalized, with behavior being motivated by avoidance of shame or guilt for failing, or by rewards of self-esteem and ego inflation for success. Introjected regulation often takes the form of *ego involvement* (Nicholls, 1984), in which self-esteem is hinged on attaining certain outcomes, resulting in an internally controlling state (Ryan, 1982). As such, introjected, like external, regulation is relatively controlled.

Moving toward the more autonomous side of this continuum of regulation, we next consider *identified regulation*, in which the individual has consciously identified with the value of a given behavior, accepts this value as his or her own, and feels responsible for its enactment. Identified regulations represent a relatively autonomous form of motivation because people feel volition when acting in accord with abiding values. Closely related to identification is the most autonomous form of extrinsic motivation, *integrated regulation*, in which one not only has identified with the value and regulation of the behavior but also has brought it into coherence with other values and identifications. Integrated extrinsic motivation shares many qualities with intrinsic motivation; people experience both as highly volitional, and these motivations are associated with positive experience. Yet these motivations do differ in that the basis of *intrinsic motivation* is interest—people engage in these behaviors because they are inherently engaging and fascinating—whereas with integrated regulation people perform the behaviors because they are instrumental and viewed as valued and important.

Indeed, intrinsic motivation, doing an activity for its inherent interest, represents a prototype of human proactivity that is experienced as highly autonomous and not a function of anxiety or defense. People are active, curious creatures; they seek out novelty and discrepancy and take pleasure in assimilating. Evolution has liberally endowed us with this growth-oriented potential, which far better characterizes our bases for learning and developing than do secondary motives such as anxiety reduction (Deci & Ryan, 1985; Ryan, Brown, & Creswell, 2007).

THE RELATIVE AUTONOMY CONTINUUM

Clearly, individuals differ in the relative autonomy they experience when enacting different behaviors or life roles. A person may feel externally regulated in one circumstance, yet identified with the importance of his or her role in another. Even the same action can vary depending on how it is incited: The slave who moves the stone for a master feels differently from an inspired sculptor moving her block. People can also have mixed motives, for example, feeling both compelled to help someone in order to avoid guilt (introjection) and also valuing being helpful (identification). Given these complexities, underlying this taxonomy of motives or regulatory processes is a *continuum of autonomy* that is useful in assessing the overall relative autonomy of behavior, when all regulations and motives are considered.

Studies by Ryan and Connell (1989), Vallerand (1997), and others (e.g., Legault, Green-Demers, Grant, & Chung, 2007) have shown that these varied types of motivation exhibit properties consistent with an underlying dimension of autonomy. They form a quasi-simplex pattern in which subscales conceptually closer to each other along the continuum are more highly correlated than those farther apart. The pattern has been supported in domains as varied as sports, religion, school, health care, and politics, among others (e.g., Ryan & Deci, 2000), and by multiple analytical methods (e.g., Roth, Kanat-Maymon, Assor, & Kaplan, 2006).

The relative autonomy of one's behavior within a domain, setting, or time period can be derived from weighting each type of one's relevant motives. In addition, insofar as each type of regulation has a distinct character, each involves different dynamic processes and predicts different outcomes. From these two ideas a large literature has been spawned, providing evidence both for the strong functional association between one's overall relative autonomy and the quality, persistence, and experiential accompaniments of behavior, and for the distinct character and consequences of the different regulatory styles we have conceptualized as lying along the autonomy continuum. Rather than attempt to capture this extensive literature, we simply refer the reader to various comprehensive reviews (e.g., Deci & Ryan, 2012; Ryan & Deci, 2000) and present only a few illustrative examples here.

First, regarding the differentiation of regulatory styles, many studies have shown contrasting outcomes associated with the different regulatory styles (Deci & Ryan, 2000). Given the simplex-like relations between styles, the most interesting comparisons are, however, those between styles relatively close in relative autonomy, such as introjected and identified regulation, which are close on the continuum but different in phenomenology and process. For example, Ryan, Rigby, and King (1993) showed that introjected motivation for religious behavior was either not related or negatively related to well-being,

whereas identified regulation was associated with greater wellness. Weinstein and Ryan (2010) obtained similar contrasting results for introjected versus identified motivations for prosocial behavior and also found that recipients of help motivated by a helper's introjection benefited less than those receiving help provided more autonomously. Koestner, Losier, Vallerand, and Carducci (1996) compared people whose involvement in political concerns was based in introjected versus identified forms of internalization. They found identification to be associated with more active political information seeking, having a more complex viewpoint, and being more likely to actually vote, whereas introjection was associated with more vulnerability to persuasion, reliance on others' opinions, and conflicting emotions about election results. In education, Yamauchi and Tanaka (1998) assessed introjection and identification in Japanese elementary students, finding introjection to strongly predict performance goals and identification to strongly predict learning goals.

These are just a few examples of a rich literature relating different motives to different behavioral and wellness outcomes in varied cultures (e.g., Chirkov, Ryan, Kim, & Kaplan, 2003). There are now several hundred studies showing that the more autonomous the regulation of values, practices, and goals, the better one's performance and the greater one's well-being. In line with these findings, researchers have correspondingly shown that controlled regulation is in part associated with lower wellness because of its greater defensiveness (e.g., Hodgins et al., 2010), thus supporting the interplay of human growth and autonomy with control and defense.

SOCIAL CONDITIONS AND AUTONOMOUS MOTIVATION

Having discussed the benefits of autonomous motivation, we now argue that this high-quality form of functioning can be either facilitated or hindered by social conditions. A large literature confirms that *autonomy-supportive contexts*—those that take interest in the other person's perspective, afford choice when possible, provide a meaningful rationale when choice is constrained, and minimize pressure—support autonomous motivation, whereas *controlling contexts*—those that pressure the person to think, feel, or behave in particular ways—foster external and introjected forms of behavioral regulation. In education, for example, studies have shown that controlling contexts are associated with children's memorization of material without understanding it well and without retaining it for long, whereas autonomy-supportive contexts are associated with conceptual understanding that is well maintained over time (Grolnick & Ryan, 1987). In the domain of sport, studies have shown that autonomy-supportive contexts are associated with greater persistence and wellness (Pelletier, Fortier, Vallerand,

& Brière, 2001). Again, this suggests that autonomy is a form of human functioning that can be facilitated by contexts that nurture the process of organismic integration but can also be disrupted by conditions that forestall this process (see Chapter 13, this volume, for more findings on conditions that facilitate or inhibit autonomy). In other words, external and internal controls interfere with the natural guidance system of the organism, thereby diminishing optimal autonomous functioning, whether conscious or nonconscious.

The causal status of these relations has been variously demonstrated but is perhaps best supported through intervention studies. A number of randomized clinical trials based on SDT have demonstrated that the provision of an autonomy-supportive treatment environment increases behaviors such as healthy eating, smoking cessation, and improved dental hygiene, relative to a more controlling environment (Ryan, Patrick, Deci, & Williams, 2008). Further, these and other studies have made clear that the ever-present possibility of individual autonomy and the simultaneous integration of the individual into a larger group or society lies in the process of internalization, which occurs most readily within autonomy-, competence-, and relatedness-supportive contexts.

It is worth noting, however, that even in relatively autonomy-supportive contexts, people will sometimes choose not to internalize a cultural value if it is counter to their deeply held beliefs, a phenomenon that represents an important "pushback" from human nature, one that can keep people from being overrun by a culture with inhumane values. Indeed, it is quite laudatory that segments of the populace in some societies have resisted being controlled by laws or regulations that would compromise their autonomy. In this dialectic, then, we can begin to see the unfolding of history in a narrative of humankind's progressive series of internalizations and resistances to them in the context of historical, cultural evolution. Put differently, when we see the progressive tendencies within cultural groups to move toward liberation—away from slavery and toward rights and capabilities—we can also see a dialectical exchange between what is transmitted and what is fitting. Further, we can understand this as highlighting the importance of human autonomy as a basic human tendency to act in accord with one's interests and values and to resist forces, be they conscious or nonconscious, that coerce people into actions that represent passivity and defense. Surely, there is plenty of passivity and defense, and resisting society's values and demands may take considerable time, but the inherent tendency to internalize fitting mores and beliefs and to resist the less-fitting ones is an aspect of human nature that disconfirms the idea that psychological freedom and autonomy are illusions. In fact, they are real and important not only for individuals but also for groups and cultural evolution.

AUTONOMY AND DEFENSE: BEHAVIORAL AND DUAL PROCESS CONSIDERATIONS

An intriguing new area for research on volition has been inspired by dual process approaches (e.g., Aarts, Custers, & Holland, 2007). In general, these approaches suggest that humans have both explicit (i.e., reflective) and implicit (i.e., nonconscious) motives, attitudes, and feelings that determine behavior and that these different sets of processes may often be inconsistent with each other, a point of considerable import to volition researchers.

In considering dual process issues with respect to autonomy, a series of studies by Legault et al. (2007) is particularly relevant. They measured both implicit and explicit prejudice as well as motives for regulating prejudice using the SDT taxonomy. They found that motivations for regulating prejudice that were more autonomous were associated with lower levels of both explicit and implicit prejudice. In other words, although people have implicit prejudices that can motivate prejudiced behaviors, those who are autonomously committed to not acting in a prejudiced way can more effectively coordinate their implicit and explicit attitudes.

Similarly, Thrash and Elliot (2002) measured implicit and explicit achievement motivation, and found them to be largely uncorrelated, though there was greater implicit–explicit convergence among individuals high in self-determination. As well, Brown and Ryan (2003) found that explicit measures of people's current feelings were uncorrelated with parallel implicit measures (using the Implicit Attitudes Test), but this lack of relation was moderated by mindfulness, such that highly mindful people showed robust positive correlations between implicit and explicit measures of emotions, whereas low mindful people showed a significant negative relation.

How do implicit and explicit discrepancies come about? We believe that a frequent root cause is social control and the suppression it fosters, potentiating defensive incongruence. Weinstein and colleagues (in press) recently investigated *reaction formation* (Freud, 1915/1961), a defense in which individuals adopt beliefs that directly oppose socially unacceptable inner impulses or desires. They examined whether parents who were more controlling fostered implicit–explicit discrepancies regarding a potentially stigmatizing issue—namely, a nonheterosexual orientation—and whether such discrepancies could in turn prompt defensive negative attitudes toward one's own implicit desires that power aggression toward homosexual others. Four studies revealed that (a) when people perceived their parents as controlling, they evidenced more incongruence in self-reported and implicitly assessed sexual orientations; (b) those with greater discrepancies between implicit and explicit orientations endorsed more antigay attitudes; and

(c) perceiving parents as homophobic moderated these relations, such that participants with parents high in control and homophobia displayed the highest incongruence in their explicit and implicit sexual orientations and the highest bias against gay individuals. These data suggest that parental control fosters implicit–explicit incongruence, whereas parental autonomy support fosters congruence regarding sexual orientations. Those who are more congruent are less vulnerable to defensive responding.

Other evidence has shown that autonomy support encourages authentic self-expression (e.g., Lynch, La Guardia, & Ryan, 2009) across cultures, whereas autonomy thwarting fosters conditional self-esteem and suppression of conflicting feelings (Roth, Assor, Niemiec, Ryan, & Deci, 2009). There is also evidence that when people's autonomy is supported with opportunities for true choice, their self-regulation is not mentally depleting, as Baumeister, Bratslavsky, Muraven, and Tice (1998) suggested, whereas if they are controlled or lacking a sense of choice, regulating behavior is depleting (Moller, Deci, & Ryan, 2006).

TERROR MANAGEMENT AND DEFENSIVENESS: IS A DEFENSIVE STRATEGY INEVITABLE?

Although we earlier wrote off certain attacks on free will as irrelevant to our functional conception of autonomy, TMT's portrait of a primarily defensive human existence demands a different kind of consideration. In TMT, there is not a denial of freedom but rather an argument that our most fundamental motivations are defensive in nature. The issue becomes not whether, but how much of our cherished senses of volition, meaning, and purpose are instead nonconsciously driven attempts to run for cover from anxiety. TMT suggests that such defensive processes supply the primary explanation of important cultural pursuits, including meaning making, group affiliations, and other human endeavors.

As reviewed by Greenberg (Chapter 1, this volume), TMT assumes that humans, like other animals, have an instinct for self-preservation, and yet they alone possess the ability to know that their own death is inevitable and forthcoming. This coupling of instinct with awareness creates the circumstance for existential terror. The central human question then becomes how such terror will be managed, and TMT's normative answer is that people employ defenses, both proximal and distal (see Pyszczynski, Greenberg, & Solomon, 1999). Numerous studies have now verified the common reactions to mortality salience (MS) conditions: proximal defense, characterized by death-thought suppression (low accessibility); a subsequent increase in death-related thoughts (high accessibility); and distal defense, characterized

by worldview protection (e.g., favoring ingroup members) and self-esteem striving (see Burke, Martens, & Faucher, 2010).

In contrast, SDT maintains that such defensive responding in the face of existential threat is not inevitable. Indeed, Niemiec et al. (2010) argued that *mindfulness*—a receptive, nonjudgmental state of mind associated with greater autonomy (Brown & Ryan, 2003; see also Chapter 14, this volume)—would moderate these defensive responses following MS. They conducted seven experiments showing that whereas less mindful individuals showed higher worldview defense under MS, more mindful individuals showed no greater worldview defense or self-esteem striving under MS than in control conditions. Further, more mindful individuals showed higher death-thought accessibility immediately following MS, which then decreased after a delay, suggesting that they processed the mortality cues more openly and completely in the moment and then let go of the experience without engaging in defense. In short, even robust TMT effects are not inevitable; when mindful, people are less defensive and more autonomous.

As existential thought has always maintained, people can, through being more openly aware and developing values that are more integrated, be resistant to influences that erode autonomy. At the same time, it is important to recognize that not all automatic or nonconscious actions are necessarily controlled and defensive; they can be congruent and consistent with autonomous functioning, as many SDT-based priming studies have shown.

"CAN VERSUS DO" AND THE BIAS OF EXPERIMENTAL SOCIAL PSYCHOLOGY

We began this essay by remarking that social psychology has disseminated a portrait of humanity as weak, defensive, and lacking in volitional capacities. This viewpoint derives support from experimental studies showing that people can be fooled about volition, can be deceived as to their degree of control, can be threatened and exhibit defensive reactions, and can be cued to behave without intention or self-endorsement. But one cannot logically leap from "can" to "do" (McCall, 1977). Just because people can be derailed does not mean they are always off track.

Experimental methods are designed to manipulate behavior—that is, to control it. When experiments succeed, investigators are often tempted to think that the behavior similarly and always occurs through such manipulations or controls outside of the experimental setting. It is a tempting but illogical leap. Thus, because some people were fooled into thinking their intentions were causal when they were not, it was concluded that people's intentions are never causal. Because MS can produce defensive,

affiliation-seeking responses in the lab, some suggest that group affiliations are merely defensive responses to the terror of mortality. Obviously, such conclusions do not follow from the data, and experimental studies alone cannot address how much "can" translates into "do." Even when behavior can be controlled, as indicated by experiments, the same behavior may also occur through varied other processes, including intrinsic ones that were not revealed in such experiments.

In fact, we have long been studying experimental evidence of vulnerabilities (for example, the undermining of intrinsic motivation by rewards; e.g., Deci, Koestner, & Ryan, 1999) or the fostering of introjects through contingent regard (e.g., Roth et al., 2009), but we have also argued consistently that these vulnerabilities need to be integrated into a fuller view of an active, and actively coping, human being. Within SDT, our model portrays an intrinsically motivated, integrative, human nature, which in times of threat or low mindfulness is vulnerable to non-self-determined behavior. In addition, we see self-determination or autonomy not as an "all or none" phenomenon but as an ongoing experience of relative autonomy in which one more or less chooses and stands behind one's actions. The fact that humans can be both alienated and free, both controlled and autonomous, is an aspect of our existential condition that cannot be reasoned away, only acknowledged and used as a basis for authentic behavior.

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